

**Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382**

Final

**AIR QUALITY PERMIT
Issued under 401 KAR 52:030**

Permittee Name: Duro Standard Products Company, LLC
Mailing Address: 7600 Empire Drive, Florence, Kentucky 41042

Source Name: Duro Standard Products Company, LLC
Mailing Address: 7600 Empire Drive
Florence, Kentucky 41042

Source Location: Same as above

Permit ID: F-04-020 R2
Agency Interest #: 174
Activity ID: APE20070002
Review Type: Conditional Major, Construction / Operating
Source ID: 21-015-00019

Regional Office: Florence Regional Office
8020 Veterans Memorial Drive, Suite 110
Florence, KY 41042
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County: Boone

Application
Complete Date: September 15, 2000
Issuance Date: January 24, 2005
Revision Date: September 5, 2007
Expiration Date: January 24, 2010



**John S. Lyons, Director
Division for Air Quality**

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	Permit type	Log or Activity#	Complete Date	Issuance Date	Summary of Action
F-04-020	Initial Issuance	51208	September 15, 2000	January 24, 2005	Initial Permit
F-04-020 R1	Revision	APE20070001	April 1, 2007	June 6, 2007	Minor Revision
F-04-020 R2	Revision	APE20070002	August 25, 2007	September 5, 2007	Minor Revision

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:030, Federally-enforceable permits for non-major sources.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Description: Fifty-three (53), uncontrolled presses utilizing water-based inks. Many of the printing lines are equipped with glue stations for application of starch based or hot melt adhesives.

Emission Point #	Line Number	Install Date	Printer Make	Model No.	Serial No.	Number of Stations	Pan Size in Inches			Volume Cubic Feet	Gallons per Ink Pan	Gallons per Printer	Pounds per Gallon	Capacity in Pounds
							Length	Width	Depth					
20157	PP2	9/1983	Windmoller & Holscher	QMS900	21115	5	72.25	20.25	2.75	2.33	17.4	87.1	10.04	874
20185	PP3	12/1986	Windmoller & Holscher	QMS901		5	72.25	20.25	2.75	2.33	17.4	87.1	11.04	961
20152	LL01	10/1999	HG Weber		1629FP	2	69	12	4	1.92	14.3	28.7	10.04	288
20183	LL02	8/2002	HG Weber		WS-4-1755	4	68.5	13.5	4	2.14	16.0	64.0	10.04	643
20153	LL03	11/1999	HG Weber	QMS990	12302	2	60	13	5	2.26	16.9	33.8	10.04	339
	LL05	7/2007	HG Weber	WS Presto		2	69	15	6	3.59	26.9	53.8	10.04	540
20166	M05	9/2007	R & D		Q-224	3	35	13	4	1.05	7.9	23.6	10.04	237
20140	M06	11/1998	Beasley French		VBF15-45-2	4	47.5	13	2.5	0.89	6.7	26.7	10.04	268
20136	M08	8/2003	Beasley French	2173		2	50	12	2.5	0.87	6.5	13.0	10.04	130
20143	M09	11/1999	Beasley French	N/A		2	31	12	3	0.65	4.8	9.7	10.04	97
20126	M10	12/1999	R & D	N/A		2	21	10	3	0.36	2.7	5.5	10.04	55
20171	M11	6/2003	Lung-Meng	FP40120A	11210	4	52	12	4	1.44	10.8	43.2	10.04	434
20160	M11A	8/2002	R & D	360	Q-2751-28	4	35.5	15.5	4	1.27	9.5	38.1	10.04	383
20154	M12	2/2002	Lung Meng	FP4080A2	11201	4	37	12	4	1.03	7.7	30.8	10.04	309
20145	M13	11/1999	R & D			2	46	8	4	0.85	6.4	12.7	10.04	128
20180	M-14	8/2002	R & D Relocated	2154	Q-2161-P	4	67	15.5	4	2.40	18.0	71.9	10.04	722
20167	M14A	6/2003	R & D		Q2278-P	2	35	15	4	1.22	9.1	18.2	10.04	183
20139	M15	12/1999	R & D	0-2339		3	35	15	3	0.91	6.8	20.5	10.04	205
20168	M15A	9/2003	R & D		N/A	2	40	10	3	0.69	5.2	10.4	10.04	104
20148	M16	3/2002	Lung-Meng	FP4080A2	11202	4	37	12	4	1.03	7.7	30.8	10.04	309
20179	M-16A	2/2004	R&D		Q-2264-P	2	35	13	3	0.79	5.9	11.8	10.04	119
20149	M17	12/1999	R & D		Q-2271	2	35.5	8	4.5	0.74	5.5	11.1	10.04	111
20150	M18	12/1999	Windmoller & Holscher	QMS991A	12186	4	53.5	12	4.5	1.67	12.5	50.0	10.04	502
20151	M19	2/2000	R & D		N/A	4	43.5	12	4.5	1.36	10.2	40.7	10.04	408
20188	M20	11/2003	Lung Meng	FP4080A2		4	35.5	12	4	0.99	7.4	29.5	11.04	326
20146	M-21	11/2003	R & D			2	35	13	4	1.05	7.9	15.8	10.04	158
20182	M-22	12/2003	R & D	Q-2715-48	360	4	49	13	4	1.47	11.0	44.1	10.04	443
	M-24	6/2007	R & D # 3			2				0.00	0.0	0.0	11.04	0
20122	G01	7/1999	Windmoller & Holscher	QMS992	8399	4	39	12	5	1.35	10.1	40.5	10.04	407
20123	G02	7/1999	Windmoller & Holscher	QMS992	9767	4	33.5	14	4	1.09	8.1	32.5	10.04	326
20124	G03	7/1999	Modified Wolverine			4	29	11	5	0.92	6.9	27.6	10.04	277
20125	G04	7/1999	Windmoller & Holscher	QMS1015	7782	4	25.5	10	5	0.74	5.5	22.1	10.04	222
20164	G05	1/2000	Lung-Meng	FP4080A3		4	37	12	4	1.03	7.7	30.8	10.04	309
20127	G06	1/2000	CI			4	48	12	4	1.33	10.0	39.9	10.04	401
20170	G06A	9/2003	Lung Meng	FP4080A3	30914	4	37	12	4	1.03	7.7	30.8	10.04	309
20186	G06C	1/2007	Lung Meng	FP4080A3	40911	4	37	12	4	1.03	7.7	30.8	10.04	309
20187	G07	1/2000	Lung-Meng		4907F	4	35.5	12	4	0.99	7.4	29.5	10.04	296
20129	G08	1/2000	Newlong			2	32	11	3	0.61	4.6	9.1	10.04	92
20131	G10	1/2000	Duro			4	29	9.5	3	0.48	3.6	14.3	10.04	144
20155	G11	1/2000	Lung Meng	FP4080A1	710	4	39	13	2	0.59	4.4	17.6	10.04	176
20132	G12	1/2000	CI			4	36	12	3	0.75	5.6	22.4	10.04	225
20119	G13	12/1999	Duro			2	5	35	9	0.91	6.8	13.6	10.04	137
20173	G14	3/2004	Lung-Meng	FP40120A2	30918	4	52	12	4	1.44	10.8	43.2	10.04	434
20178	G15	1/2000	Potdevin			2	37	4	10	0.86	6.4	12.8	10.04	129
20147	G16A	12/1999	R & D		Q2090-P	2	35	12	4	0.97	7.3	14.5	10.04	146
20175	G18	4/2004	Lung-Meng	FP4080A2	30915	4	35.5	12	4	0.99	7.4	29.5	10.04	296
20176	G19	2/2004	Lung Meng	FP4080A3	30911	4	37	12	4	1.03	7.7	30.8	10.04	309
20189	G20	4/2007	Lung-Meng	FP4080A3	40913	4	37	12	4	1.03	7.7	30.8	10.04	309
20161	G21	8/2002	Lung-Meng			4	37	12	4	1.03	7.7	30.8	10.04	309
20192	G21A	1/2007	R & D			3	50	15	4	1.74	13.0	39.0	11.04	430
20190	G22	4/2007	Lung-Meng	FP4080A3	40914	4	37	12	4	1.03	7.7	30.8	10.04	309
20177	G23	3/2004	Lung Meng	FP40120A2	30917	4	52	12	4	1.44	10.8	43.2	10.04	434
20191	G25	10/2002	Lung-Meng	FP4080A3		4	37	12	4	1.03	7.7	30.8	10.04	309

APPLICABLE REGULATIONS:

401 KAR 59:212—New graphic arts facilities using rotogravure and flexography. Applicable to each affected facility commenced on or after February 4, 1981 and located in a county designated nonattainment for ozone.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PRINTING LINES

1. Operating Limitations:

401 KAR 59:212, Section 6, Exemption 1

Utilize waterborne inks whose volatile portion consists of seventy-five (75) volume percent water and twenty-five (25) volume percent organic solvent (or a lower VOC content) in all printing units.

Compliance Demonstration Method:

a. For a single component ink, calculate the volume of VOC “as supplied” using the following method:

- (1) Find the volume percentages for each of the volatile fractions using EPA Method 24A, MSDS, or manufacturers’ data sheets in combination with the equations below.

$$\% \text{ volume solvent} = \frac{\sum_{i=1}^n (\text{weight \% solvent})_i [\text{ink density (lbs / gal)}]}{\sum_{i=1}^n (\text{solvent density})_i}$$

$$\% \text{ volume water} = \frac{(\text{weight \% water}) [\text{ink density (lbs / gal)}]}{8.34 (\text{lbs / gal})}$$

$$\% \text{ volume E.S.} = \frac{\sum_{i=1}^n (\text{weight \% exempt solvent})_i [\text{ink density (lbs / gal)}]}{\sum_{i=1}^n (\text{exempt solvent density})_i}$$

- (2) Calculate the fractions of the volatile components in the “as supplied” ink. Exempt solvents are considered equivalent to water for the purpose of compliance demonstration, [59:212, Section 4, (5)].

$$(\text{VOC})_s = \frac{\% \text{ volume solvent}}{\% \text{ volume solvent} + \% \text{ volume water} + \% \text{ volume E.S.}}$$

$$(\text{H}_2\text{O})_s = \frac{\% \text{ volume water} + \% \text{ volume E.S.}}{\% \text{ volume solvent} + \% \text{ volume water} + \% \text{ volume E.S.}}$$

- (3) An ink, delivered to the applicator, “as supplied”, for which $(\text{VOC})_s \leq 0.25$, and $(\text{H}_2\text{O})_s \geq 0.75$ is considered to meet the **Operating Limitation** above and 59:212, Section 6, Exemption 1.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PRINTING LINES

1. Operating Limitations: (continued)

- b. **When a single component ink is combined with extenders and additives, use the following method to calculate the volume of VOC “as applied”:**

- (1) Calculate the volume percentages of volatile materials for each “as supplied” component of the ink blend using the methods above.
- (2) Calculate the fractions of the volatile components in the “as applied” ink.

$$(VOC)_A = \frac{(vol. \text{ compt.})_1 (VOC_s)_1 + (vol. \text{ compt.})_2 (VOC_s)_2 + \cdots + (vol. \text{ compt.})_n (VOC_s)_n}{(vol. \text{ compt.})_1 + (vol. \text{ compt.})_2 + \cdots + (vol. \text{ compt.})_n}$$

$$(H_2O)_A = \frac{(vol. \text{ compt.})_1 (H_2O_s)_1 + (vol. \text{ compt.})_2 (H_2O_s)_2 + \cdots + (vol. \text{ compt.})_n (H_2O_s)_n}{(vol. \text{ compt.})_1 + (vol. \text{ compt.})_2 + \cdots + (vol. \text{ compt.})_n}$$

- (3) An ink, “as applied”, for which $(VOC)_A \leq 0.25$, and $(H_2O)_A \geq 0.75$ is considered to be compliant with the **Operating Limitation** above and 59:212, Section 6, Exemption 1.

- c. **If an ink, “as supplied”, is compliant with the operating limitation above, and the volatile portion of any dilutants or additives added to the “as supplied” ink, consist of only water or exempt solvent, then the “as applied” ink is also considered to meet the exemption.**

- (1) The permittee shall keep records of the ink manufacturer’s certified product data sheets (CPDS), MSDS, or method 24 test results, which demonstrate that the ink, “as supplied”, has a volatile portion consisting of at least seventy-five (75) volume percent water (including exempt solvent) and twenty-five (25) volume percent organic solvent (or a lower VOC content).
- (2) The permittee shall keep records of all materials added at the press for viscosity adjustments, etc., including all relevant manufacturer’s data sheets, MSDS, and method 24 tests, to demonstrate that these materials contain only exempt solvents or water.

2. Emission Limitations: See Section D for sourcewide emission limitations.

3. Testing Requirements:

- a. Testing shall be conducted at such times as may be required by the Cabinet in accordance with Regulations 401 KAR 59:005 Section 2(2) and 401 KAR 50:045 Section 4.
- b. If deemed necessary by the Division, the Division shall obtain samples of the inks used to verify that the inks meet the requirements specified under, **1. Operating Limitations**, [59:212, Section 4, (4)]

4. Specific Monitoring Requirements: See 5. Specific Recordkeeping Requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**PRINTING LINES****5. Specific Recordkeeping Requirements:**

- a. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources*, daily records shall be maintained by the source for the most recent five (5) year period. These records shall be made available to the Cabinet or the U.S. EPA upon request.
- b. These records shall include the following, [59:212, Section 4, (6)]:
 - (1) Applicable administrative regulation number;
 - (2) Application method and substrate type;
 - (3) Amount and type of graphic arts material, adhesive, or solvent used including exempt compounds;
 - (4) The VOC content as applied in each graphic arts material, adhesive, or solvent;
 - (5) The date for each application for graphic arts material, adhesive, or solvent;
 - (6) The amount of surface preparation, cleanup, or washup solvent (including exempt compounds) used and the VOC and HAP content of each;
- c. Calculate and record the VOC emissions for each month using the **Compliance Demonstration Method of Section D.**
- d. Calculate and record a new 12-month rolling total for VOC emissions each month.
- e. The permittee shall keep monthly records the mass of all HAP containing materials used during the month, the mass fraction of each HAP present in all HAP containing materials, monthly totals of all HAP emissions, and 12-month rolling totals. Information kept shall be sufficient such that the permittee is capable of demonstrating minor source status for HAP if requested to do so by the Cabinet.

6. Specific Reporting Requirements:

- a. The permittee shall report monthly VOC emissions and 12-month rolling VOC emission totals as part of the semiannual reporting as required in Section F (5 & 6). The semiannual reporting may also coincide with the annual compliance certification required in Section F.9.
- b. See Section G.4 for construction notification requirements.

7. Specific Control Equipment Operating Conditions: See Section E.**8. Alternate Operating Scenarios:** None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**B01 (B01)** No. 2 Fuel Oil Fired Boiler

Description: Superior Boiler Works, w/Osage Boiler Burner, No. 2 Fuel Oil Fired
8.9 MMBtu/hr input
Installed (3/1981)

APPLICABLE REGULATIONS:

Regulation 401 KAR 59:015, applicable per Section 2 (1); "Affected facility" means an indirect heat exchanger having a heat input capacity of more than one (1) million BTU per hour. Regulation is applicable to each affected facility commenced on or after April 9, 1972 with respect to particulate emissions and sulfur dioxide emissions, [Section 2 (3) (b)].

1. **Operating Limitations:** None

2. **Emission Limitations:**

401 KAR 59:015

- (1) Section 4(1)(a) limits emissions of particulate matter to (0.56) pounds per million BTU actual heat input.
- (2) Section 4(2) limits visible emissions from each stack to less than 20% opacity except:
 - 4(2)(b) A maximum of forty (40) percent opacity shall be permissible for not more than six (6) consecutive minutes in any sixty (60) consecutive minutes during cleaning the fire box or blowing soot.
 - 4(2)(c) For emissions from an indirect heat exchanger during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
- (3) Section 5(1)(a) limits emissions of sulfur dioxide to (3.0) pounds per million BTU actual heat input.

Compliance Demonstration Method:

- (1) Purchasing records for the No. 2 Fuel Oil shall be sufficient to show compliance with Emission Limits (1) and (3).
- (2) The permittee shall perform a qualitative visual observation of the opacity of emissions from the roof top vent at least once per operating month and maintain a log of the observations. If visible emissions from the stack are observed, (not including condensed water vapor within the plume), then the opacity shall be determined by Reference Method 9. If emissions are in excess of the applicable opacity limit, then an inspection shall be initiated for all necessary repairs.

3. **Testing Requirements:** Testing shall be conducted at such times as may be required by the Cabinet in accordance with Regulations 401 KAR 59:005 Section 2(2) and 401 KAR 50:045 Section 4.

4. **Specific Monitoring Requirements:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Recordkeeping Requirements: None
6. Specific Reporting Requirements: None
7. Specific Control Equipment Operating Conditions: None
8. Alternate Operating Scenarios: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

SOLVENT CLEANERS

Description: Solvent Cleaners (2), (Safety-Kleen 105 Solvent)

Safety Kleen
Model 16, Ser. No. 1739-825 d
2.5 ft x 1.6 ft x 0.58 ft
Installed 1989

Duro
Model n/a, Ser. No. n/a
3.63 ft x 1.83 ft x 2 ft
Installed 1989

APPLICABLE REGULATIONS:

401 KAR 59:185- New solvent metal cleaning equipment applies to each affected facility commenced on or after June 29, 1979 and located in Boone, Campbell, or Kenton counties.

1. Operating Limitations:

- a. The permittee shall not operate the cold cleaner using a solvent with a vapor pressure that exceeds one (1.0) mm Hg (0.019 psi) measured at 20° C (68° F).
- b. Waste solvent shall not be disposed of or transferred to another party so that greater than twenty (20) percent by weight of the waste solvent can evaporate into the atmosphere. Waste solvent shall be stored only in covered containers.
- c. The degreaser cover shall be closed if not handling parts in the cleaner.
- d. Cleaned parts shall be drained for a minimum of fifteen (15) seconds, or until dripping ceases, whichever is longer.
- e. The flushing of parts with a flexible hose or other flushing device shall be performed only within the freeboard area of the cold cleaner. The solvent flow shall be directed downward to avoid turbulence at the air-solvent interface so as to prevent the solvent from splashing outside of the cold cleaner.
- f. Work area fans shall be positioned so that air is not directed across the opening of the cold cleaner.
- g. The use of an air-agitated solvent bath is prohibited. A pump-agitated solvent bath shall be operated so as to produce no observable splashing of the solvent against either the tank wall or the parts that are being cleaned.
- h. The cold cleaner shall be free of all liquid leaks. Auxiliary cleaning equipment such as pumps, water separators, steam traps, or distillation units shall not have any visible leaks, tears, or cracks.
- i. Spills that occur during solvent transfer shall be cleaned immediately. Wipe rags, or other absorbent equipment and materials, used to clean the spill shall be stored in a covered container for disposal unless storage of these items is prohibited by fire protection authorities.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**SOLVENT CLEANERS**

2. **Emission Limitations:** None

3. **Testing Requirements:** None

4. **Specific Monitoring Requirements:** None

5. **Specific Recordkeeping Requirements:**

The permittee shall maintain records for a minimum of five (5) years that include the following information for each solvent purchase:

- a. The name and address of the solvent supplier;
- b. The date of the purchase;
- c. The type of solvent; and
- d. The vapor pressure of the solvent measured in mm Hg at 20° C (68° F).

6. **Specific Reporting Requirements:** None

7. **Specific Control Equipment Operating Conditions:**

- a. The cleaner shall be equipped with a cover. If the solvent volatility is greater than fifteen (15) mm Hg measured at 100°F or if the solvent is agitated or heated, then the cover shall be designed so that it can be easily operated with one (1) hand.
- b. The cleaner shall be equipped with a drainage facility so that solvent that drains off parts removed from the cleaner will return to the cleaner. If the solvent volatility is greater than thirty-two (32) mm Hg measured at 100°F then the drainage facility shall be internal so that parts are enclosed under the cover while draining. The drainage facility may be external if the cabinet determines that an internal type cannot fit into the cleaning system.
- c. A permanent, conspicuous label, summarizing the operating requirements specified in subsection (2) of this section shall be installed on or near the cleaner.
- d. If used, the solvent spray shall be a fluid stream, not a fine, atomized or shower type spray, and at a pressure that does not cause excessive splashing.
- e. If the solvent volatility is greater than thirty-two (32) mm Hg measured at 100°F or if the solvent is heated above 120°F, then one (1) of the following control devices shall be used:
 1. Freeboard height that gives a freeboard ratio greater than or equal to seven-tenths (0.7);
 2. Water cover, solvent shall be insoluble in and heavier than water; or
 3. Other systems of equivalent control, such as a refrigerated chiller or carbon adsorption.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:030, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

<u>Description</u>	<u>Generally Applicable Regulation</u>
1. Preprinter Drying Oven	None
2. Propane Storage Tank	None
3. #2 Fuel Oil Storage Tank	None
4. Natural Gas Fired Boiler Cleaver Brooks Model ProFire, Low NO _x Burners and Flue Gas Recirculation 2.5 MMBtu/hr input Installed (4/2000)	59:015
5. Thermal Incinerator – (Not in Service) Smith Environmental Corp. TAB10-80 natural gas-fired	None
6. Removal of line M-10 Original Emission Point # 20126	None
7. Replacement of flexographic printing press on line number M-05. Original emission point # 20181 Replacement emission point # 20166	None

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.
2. VOC and HAP emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.
3. **Emission Limitations:**

- A. The permittee shall have the source wide emissions of VOC (Volatile Organic Compounds) ≤ 20 tons during any consecutive 12 months period. [401 KAR 52:030]

Compliance Demonstration Method: Total monthly VOC emissions, V, in pounds, shall be calculated using a material balance.

$$V = \sum_{i=1}^p M_i C_{vi} + \sum_{j=1}^q M_j C_{vj}$$

Where;

M_i = mass of ink or other solids containing material, i, applied in a month, lb.

M_j = mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j, applied in a month, lb.

C_{vi} = the volatile matter content of ink or other material, i, expressed as a weight-fraction, lb/lb, less water and/or exempt solvent.

C_{vj} = the volatile matter content of solvent, j, expressed as a weight-fraction, lb/lb, less water and/or exempt solvent

i = individual ink or other solids containing material

j = individual solvent, thinner, reducer, diluent, or other non-solids-containing material

p = the number of different inks, coatings, varnishes, adhesives, primers, and other materials applied in a month.

q = the number of different non-solids-containing materials applied in a month

- B. The permittee shall have the source wide emission limitation of Single Hazardous Air Pollutants (HAP) ≤ 9 tons during any consecutive 12 months period. [401 KAR 52:030]

Compliance Demonstration Method: Total monthly organic HAP emissions, H, in pounds, shall be calculated using a material balance.

$$H = \sum_{i=1}^p M_{hi} C_{hi}$$

Where;

M_{hi} = mass of ink or other HAP containing material, i, applied in a month, lb.

C_{hi} = the organic HAP content of ink or other material, i, expressed as a weight-fraction, lb/lb.

i = individual HAP containing material, (i.e. toluene, xylene, etc.)

p = the number of different HAP containing materials applied in a month.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place (as defined in this permit), and time of sampling or measurements;
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [401 KAR 52:030 Section 3(1)(f)1a and Section 1a-7 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
3. In accordance with the requirements of 401 KAR 52:030 Section 3(1)f the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit;
 - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:030 Section 22. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.
7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7 above) to the Regional Office listed on the front of this permit within 30 days. Deviations from permit requirements, including those previously reported under F.7 above, shall be included in the semiannual report required by F.6 [Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
9. Pursuant to 401 KAR 52:030, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit in accordance with the following requirements:
 - a. Identification of each term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period.
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

- f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications shall be mailed to the following addresses:

Division for Air Quality
Florence Regional Office
8020 Veterans Memorial Drive, Suite 110
Florence, KY 41042

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

10. In accordance with 401KAR 52:030, Section 3(1)(d), the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee. If a KYEIS emission survey is not mailed to the permittee, then the permittee shall comply with all other emission reporting requirements in this permit.
11. The Cabinet may authorize the temporary use of an emission unit to replace a similar unit that is taken off-line for maintenance, if the following conditions are met:
- a. The owner or operator shall submit to the Cabinet, at least ten (10) days in advance of replacing a unit, the appropriate Forms DEP7007AI to DD that show:
 - (1) The size and location of both the original and replacement units; and
 - (2) Any resulting change in emissions;
 - b. The potential to emit (PTE) of the replacement unit shall not exceed that of the original unit by more than twenty-five (25) percent of a major source threshold, and the emissions from the unit shall not cause the source to exceed the emissions allowable under the permit;
 - c. The PTE of the replacement unit or the resulting PTE of the source shall not subject the source to a new applicable requirement;
 - d. The replacement unit shall comply with all applicable requirements; and
 - e. The source shall notify Regional office of all shutdowns and start-ups.
 - f. Within six (6) months after installing the replacement unit, the owner or operator shall:
 - (1) Re-install the original unit and remove or dismantle the replacement unit; or
 - (2) Submit an application to permit the replacement unit as a permanent change.

SECTION G - GENERAL PROVISIONS**1. General Compliance Requirements**

- a. The permittee shall comply with all conditions of this permit. A noncompliance shall be a violation of 401 KAR 52:030 Section 3(1)(b) and a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to the termination, revocation and reissuance, revision, or denial of a permit [Section 1a-2 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a-5 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:030 Section 18. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:030 Section 12;
 - (2) The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

- d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a- 6 and 7 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:030 Section 3(1)(c)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

- f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:030 Section 7(1)].
- g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-11 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- i. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens. [Section 1a-12-b of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038 Section 3(6) [Section 1a-9 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:030 Section 11(3)].
- l. This permit does not convey property rights or exclusive privileges [Section 1a-8 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].
- m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.
- n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry.
- o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders.

SECTION G - GENERAL PROVISIONS (CONTINUED)

- p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.
- q. Pursuant to 401 KAR 52:030, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
 - (1) Applicable requirements that are included and specifically identified in this permit; and
 - (2) Non-applicable requirements expressly identified in this permit.

2. Permit Expiration and Reapplication Requirements

- a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:030 Section 12].
- b. The authority to operate granted through this permit shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:030 Section 8(2)].

3. Permit Revisions

- a. Minor permit revision procedures specified in 401 KAR 52:030 Section 14(3) may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:030 Section 14(2).
- b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

SECTION G - GENERAL PROVISIONS (CONTINUED)**4. Construction, Start-Up, and Initial Compliance Demonstration Requirements**

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, flexographic press M25, and for replacement of press M05 in accordance with the terms and conditions of this permit.

- a. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
- b. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the Division's Frankfort Central Office, notification of the following:
 - (1) The date when construction commenced.
 - (2) The date of start-up of the affected facilities listed in this permit.
 - (3) The date when the maximum production rate specified in the permit application was achieved.
- c. Pursuant to 401 KAR 52:030, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.
- d. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the draft permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the Cabinet.
- e. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. Testing must also be conducted in accordance with General Provisions G.5 of this permit.
- f. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

SECTION G - GENERAL PROVISIONS (CONTINUED)**5. Testing Requirements**

- a. Pursuant to 401 KAR 50:045 Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.
- b. Pursuant to 401 KAR 50:045 Section 5, in order to demonstrate that a source is capable of complying with a standard at all times, any required performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.
- c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

6. Acid Rain Program Requirements

- a. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

7. Emergency Provisions

- a. Pursuant to 401 KAR 52:030 Section 23(1), an emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
 - (1) An emergency occurred and the permittee can identify the cause of the emergency;

SECTION G - GENERAL PROVISIONS (CONTINUED)

- (2) The permitted facility was at the time being properly operated;
 - (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
 - (4) The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two (2) working days of the time when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken.
 - (5) Notification of the Division does not relieve the source of any other local, state or federal notification requirements.
- b. Emergency conditions listed in General Provision G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:030 Section 23(3)].
- c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:030 Section 23(2)].
8. Ozone depleting substances
- a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - (1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - (2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - (3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
 - (5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
 - b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

SECTION G - GENERAL PROVISIONS (CONTINUED)

9. Risk Management Provisions

- a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center
P.O. Box 1515
Lanham-Seabrook, MD 20703-1515.

- b. If requested, submit additional relevant information to the Division or the U.S. EPA.

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None